Frequency of intestinal parasites in acquired immunocompromised patients referred to hospitals in Ardabil

Introduction: Despite continued and wide planning of the World Health Organization (WHO), intestinal parasitic infections are a serious public problem in developing countries. Due to the importance of intestinal parasites in immunocompromised patients and the high possibility of parasitic infections with severe symptoms, the aim of this study was set to assess the frequency of intestinal parasites in immunocompromised patients in Ardabil.

Materials and methods: In this cross-sectional study, 100 fecal samples were collected from immunocompromised patients between Feb 2015 and Sep 2015. Samples were transferred to the laboratory of parasitology, faculty of medicine. Nutrient agar culture was performed comprising detection of **Strongyloides stercoralis larvae** in **stool** samples. The samples were examined with direct wet mount and formalin-ethyl-acetate concentration techniques for detection of intestinal pathogenic parasites. Modified-ziehl-neelsen acid fast staining was implemented for identification of cryptosporidium, isospora and cyclospora in stool samples.

Results: The results of stool cultures on nutrient agar plates showed any infection by *Strongyloides stercoralis* larvae. The direct wet mount examination and formalin-ethyl-acetate concentration techniques identified six positive samples; containing Teania spp. (1%), *Blastocystis hominis* (3%) and *Giardia lambelia* cyst (2%). Cryptosporidium spp. oocysts were detected in 4% of samples by modified-ziehl-neelsen acid fast staining method. Overall, the prevalence of pathogenic intestinal parasite infections was 10% in this study. There was no significant association between intestinal pathogenic parasite infection with gender, type of immunodeficiency, location, occupation, age and education level of patients.

Conclusion: In this study, the frequency of intestinal parasitic infections in acquired immunocompromised patients was conducted in Ardabil province. **Cold-weather** conditions and household drinking water system may effect on low range of parasitic infection detected in this study.

Key words: Intestinal parasites, Acquired Immunocompromised Patients, Frequency, Ardabil